

BRIEF REPORT

Intimate Partner Psychological Aggression and Child Behavior Problems

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The present study examined the relationship between intimate partner psychological aggression and children's behavior problems in a community sample of families (N = 470 children). The results showed that psychological aggression experienced by the mother has adverse effects on children's externalizing and internalizing behavior problems over and above the effects of physical aggression. The association between psychological aggression and child behavior problems was partially mediated by maternal distress. Exposure to psychological aggression appears to have unique direct and indirect adverse effects on children.

More than 15 million children in the United States live in families where intimate partner violence occurred at least once in the previous year (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006). In-

timate partner violence usually co-occurs with psychological aggression, which has recently been shown to be associated with psychological distress and trauma-related symptomatology in both shelter and community samples

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(Arias & Pape, 1999; Taft et al., 2006). Though research in this area is limited, some recent evidence among women in domestic violence shelters (Levendosky & Graham-Bermann, 2001) and partners of abusers in treatment (Panuzio, Taft, Black, Koenen, & Murphy, in press) suggests that interparental psychological aggression may have a robust, unique association with child behavior problems. The present study further examined the relationship between male-to-female psychological aggression and child behavior problems in a community sample of families, specifically testing whether witnessing male-to-female psychological aggression has an adverse effect on children's internalizing and externalizing behavior problems over and above the effects of witnessing partner physical aggression.

Male-to-female psychological aggression may affect child behavior directly or indirectly through its effect on maternal distress. Levendosky and Graham-Berman (2001), in an examination of women and children residing in shelters, found that maternal stress appeared to account for the effects of interparental psychological aggression and physical assault on child behavior problems. Similarly, Panuzio et al. (in press) found that maternal PTSD largely mediated the relationship between male-to-female psychological aggression and children's behavior problems. Using the same sample as the present study, Street, King, King, and Riggs (2003) showed that maternal distress mediated the association between male-to-female physical aggression and child problems. The current study builds on the findings of Street et al. (2003) by testing the hypothesis that maternal distress mediates the association between witnessing male-to-female psychological aggression and child behavior problems, after adjusting for the influence of physical aggression.

METHOD

Data Source

The National Vietnam Veterans Readjustment Study (NVVRS; Kulka et al., 1990a, 1990b) was a congressionally mandated investigation that sought to document the psychosocial functioning of those who served in the Vietnam

conflict. The current study sample comprises data from the Family Interview component of the NVVRS, which involved face-to-face, 1-hour structured interviews with the spouse or cohabitating partner of the veteran. The Family Interview component had a response rate of 80%. The current study sample consisted of children between the ages of 6 to 16 ($N = 470$, 50% male) of 300 married male veteran–female pairs. Of the men, 24% identified themselves as African American, 29% as Hispanic American, and 47% as White/other. The women had a similar distribution with 23% African American, 22% Hispanic American, and 55% White/other.

Measures

Relationship psychological and physical aggression was measured by the Conflict Tactics Scale (CTS; Straus, 1979). The CTS is a widely used 18-item instrument designed to assess the ways in which couples resolve conflict. Each item is rated on a 7-point scale ranging from 0 (*never*) to 6 (*more than 20 times*), and these scores are summed. Female partner CTS ratings of male partner-perpetrated physical and psychological aggression were used for this study. As reported by the wives, more than 88% reported one or more incidents of psychological aggression and 21% experienced one or more incidents of physical violence in the past year. The alpha coefficients for the present sample were .90 for the physical aggression CTS subscale and .86 for the verbal aggression CTS subscale.

Female partner distress was measured using the 17-item demoralization subscale of the Psychiatric Epidemiological Research Interview (PERI; Dohrenwend, 1982). These items assessed aspects of depression, dread, anxiety, hopelessness, and poor self-esteem. The female partner responded to each item using a 5-point Likert-type format. Responses were summed to compute the demoralization total score. The alpha coefficient for the current sample is .94.

Child behavior problems were assessed using the Child Behavior Checklist (CBCL; Achenbach, 1991). The CBCL is a standardized, parent-report measure that includes 118 problem behavior items. The items form two scales:

internalizing problems (consisting of withdrawn, somatic, and anxious/depressed subscales) and externalizing problems (consisting of delinquent and aggressive subscales). Maternal reports on all children in the household between the ages of 6 and 16 were used. The most recent manual (Achenbach, 1991) reports high internal consistency and 1-week test-retest reliability of estimates of internalizing, externalizing, and total scores ranging from .87 to .96. The alpha coefficient for both the externalizing and internalizing scales in this sample was .89.

Data Analyses

Because data were collected on more than one child from some families, analyses used the robust Huber/White/Sandwich variance estimator with the Cluster option using Stata software (Version 7.0; StataCorp, 2001). This analysis adjusts estimated standard errors to account for the nonindependence of data from children in the same family (Rogers, 1993). Robust variances also give accurate assessments of the sample-to-sample variability of the parameter estimates even when model assumptions are violated, such as under conditions of heteroscedasticity.

Descriptive statistics for all of the study variables were computed. Bivariate correlations among study variables were calculated to test the hypothesized associations among the measures of physical aggression, psychological aggression, maternal distress, and child internalizing and externalizing behavior problems. Next, ordinary least squares (OLS) regressions were used to test whether psychological aggression predicted children's behavior problems after controlling for partner physical aggression.

The approach to testing mediators outlined by MacKinnon and Dwyer (1993) and based on Baron and Kenny (1986) was employed to examine the hypothesis that maternal distress would account for the associations between the aggression measures and child behavior problems. The mediational hypothesis is supported if (a) psychological aggression is associated with maternal distress and child behavior problems; (b) when psychological aggression and maternal distress are entered together into a regression equation predicting child behavior problems, the effect of maternal distress is significant; and (c) the mediation effect is significant. Effect sizes were interpreted in terms of suggestions made by Cohen (1988).

RESULTS

Descriptive statistics for all study variables and a correlation matrix of the variables are presented in Table 1. Consistent with hypotheses, psychological aggression was significantly associated with maternal distress and both internalizing and externalizing child behavior problems, with medium effect sizes obtained for these associations. Associations between psychological aggression and the outcomes were slightly larger than those that were found for physical aggression, although these differences were not statistically significant. Consistent with expectations, maternal distress was associated with both forms of child behavior problems, with medium effect sizes obtained. Psychological aggression was also highly correlated with physical aggression.

When psychological aggression and physical aggression were entered together as predictors of child behavior problems, the effects of psychological aggression on

Table 1. Descriptive Statistics and Intercorrelations

Variable	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5
1. CTS Physical partner abuse	1.70	5.41	0–47	—				
2. CTS Psychological partner abuse	9.68	8.73	0–47	.59***	—			
3. Maternal distress	58.75	17.30	27–120	.24***	.42***	—		
4. CBCL–Internalizing	6.83	6.58	0–41	.25***	.38***	.42***	—	
5. CBCL–Externalizing	8.32	7.17	0–36	.20***	.30***	.36***	.64***	—

Note. CTS = Conflict Tactics Scale; CBCL = Child Behavior Checklist.

* $p < .05$. ** $p < .01$. *** $p < .001$.

internalizing ($B = 0.28$, $SE = 0.07$, 95% $CI = 0.13-0.42$, $p < .001$), and externalizing ($B = 0.23$, $SE = 0.09$, 95% $CI = 0.05-0.41$, $p < .05$) behavior was significant.¹

As described, the initial conditions for demonstrating mediation (associations between psychological aggression and both maternal distress and child behavior problems) were met for both internalizing and externalizing behavior problems. When psychological aggression and maternal distress scores were entered together as predictors of internalizing behavior in a regression equation adjusted for physical partner aggression, the effects of psychological aggression ($B = 0.17$, $SE = 0.07$, 95% $CI = 0.03-0.32$, $p < .05$), and maternal distress ($B = 0.13$, $SE = 0.04$, 95% $CI = 0.05-0.20$, $p < .001$) remained significant. A direct test of the mediational path was significant, Sobel Test = 2.98, $p < .01$ (Sobel, 1982). When psychological aggression and maternal distress scores were entered together as predictors of externalizing behavior, only maternal distress ($B = 0.12$, $SE = 0.03$, 95% $CI = 0.06-0.19$, $p < .001$), and not psychological partner aggression ($B = 0.13$, $SE = 0.09$, 95% $CI = -0.05-0.32$, $p = .17$), remained significant. A test of the indirect effect was significant, Sobel Test = 2.93, $p < .01$ (Baron & Kenny, 1986; Sobel, 1982). This pattern of findings provides partial support for the hypothesis that maternal distress mediates the association between aggression exposure and child behavior problems.

DISCUSSION

This is the first study of which we are aware that has examined the effects of intimate partner psychological aggression on child behavior problems among a sample of veteran families. There are two primary findings. The first is that interparental male-to-female psychological aggression was significantly associated with both child internalizing and externalizing behavior problems beyond the effects of physical aggression alone. Second, maternal distress fully

mediated the association between interparental psychological aggression and child externalizing behavior problems; psychological aggression no longer significantly predicted externalizing behavior problems after maternal distress was added to the model. Maternal distress only partially mediated the association between witnessing psychological aggression and child internalizing behavior problems. This study is consistent with earlier studies demonstrating that partner physical aggression and psychological aggression are highly correlated (Follingstad, Rutledge, Berg, Hause, & Polek, 1990). These findings support the hypothesis that witnessing male-perpetrated psychological aggression against mothers may have adverse consequences for children over and above their experiences of witnessing male-perpetrated physical aggression, and this relationship occurs at least in part, due to the harmful effects of the aggression on the mother.

This study has several limitations. First, we are relying on maternal reports of aggression, distress, and child behavior and, therefore, the high correlations between variables could be due in part to reporting biases. Second, these data are cross-sectional and the directions of associations are unknown. Accordingly, no causal conclusions can be drawn. Third, data were collected from a community sample of Vietnam era veteran families. The results are not necessarily generalizable to families of other war eras or more recent veterans.

Despite these limitations, however, this study makes a contribution to the literature by documenting that interparental psychological aggression appears to have adverse effects on children. Considering recent increases in married or partnered military personnel, and some evidence indicating heightened levels of relationship aggression among this population, particularly those exposed to trauma (see Marshall, Panuzio, & Taft, 2005), current study findings have important clinical and programmatic implications. Psychological aggression should be considered an important public health concern among these families, and military families may benefit from education and support around issues of psychological aggression in addition to physical aggression. Furthermore, interventions may need to focus both on

¹ We tested whether sex moderated the association between partner psychological aggression and child behavior. The interaction between sex and partner psychological aggression was also not significant for internalizing ($p = .12$) or for externalizing ($p = .57$) behavior problems. Thus, boys and girls were combined in all analyses.

reducing psychological aggression and on improving mother's mental health to benefit children.

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